P-3 Orion - WFF 05/08/19

Aircraft: P-3 Orion - WFF (See full schedule)
Flight Number: 2019 OIB Science Flight #19
Payload Configuration: Operation IceBridge
Nav Data Collected: No
Total Flight Time: 8 hours
Submitted by: Mike Cropper on 05/09/19
Flight Segments:

From:	BGSF	**To:**	BGSF
Start:	05/08/19 08:40 Z	**Finish:**	05/08/19 16:40 Z
Flight Time:	8 hours		
Log Number:	19P017	**PI:**	Joseph MacGregor
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	19P017
Flight Hours Approved in SOFRS	250
Total Used	216.3
Total Remaining	33.7

19P017 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
03/26/19	#2053: 2019 OIB ATF	Check	0.9	0.9	249.1	0
03/27/19	#2059: 2019 OIB PTF-Laser	Check	2.3	3.2	246.8	0
03/28/19	#2061: 2019 OIB PTF-Radar	Check	3.2	6.4	243.6	0
04/01/19	#2068: 2019 OIB WFF-BGTL Transit Flight	Transit	6.9	13.3	236.7	2458
04/03/19	#2070: 2019 OIB Science Flight #1	Science	7.6	20.9	229.1	1938
04/05/19	#2072: 2019 OIB Science Flight #2	Science	7.7	28.6	221.4	1910
04/06/19	#2073: 2019 OIB Science Flight #3	Science	7.2	35.8	214.2	2000
04/08/19	#2075: 2019 OIB Science Flight #4	Science	6.9	42.7	207.3	1780
04/09/19	#2076: 2019 OIB Science Flight #5	Science	7.8	50.5	199.5	2045
04/10/19	#2081: 2019 OIB Science Flight #6	Science	10.1	60.6	189.4	2702
04/11/19	#2082: BGSF-BGTL Transit	Transit	2.2	62.8	187.2	696
04/12/19	#2083: 2019 OIB Science Flight #7	Science	7.2	70	180	2109
04/15/19	#2086: 2019 OIB Science Flight #8	Science	4.8	74.8	175.2	1243
04/16/19	#2087: 2019 OIB Science Flight #9	Science	7.6	82.4	167.6	2036
04/17/19	#2088: 2019 OIB Science Flight #10	Science	7.7	90.1	159.9	1937

04/18/19	#2090: 2019 OIB Science Flight #11	Science	7.8	97.9	152.1	2008
04/19/19	#2091: 2019 OIB Science Flight #12	Science	7.6	105.5	144.5	2104
04/20/19	#2092: 2019 OIB Science Flight #13	Science	6.9	112.4	137.6	0
04/22/19	#2094: 2019 OIB Science Flight #14	Science	6.6	119	131	1867
04/23/19	#2099: 2019 OIB Science Flight #15	Science	7.7	126.7	123.3	1979
04/25/19	#2102: 2019 OIB BGTL-KBGR Transit Flight	Transit	6.2	132.9	117.1	0
04/26/19	KBGR to BGSF Transit	Transit	5.7	138.6	111.4	0
05/05/19	2019 OIB Science Flight #16	Science	7.8	146.4	103.6	0
05/06/19	2019 OIB Science Flight #17	Science	8.4	154.8	95.2	0
05/07/19	2019 OIB Science Flight #18	Science	8.5	163.3	86.7	0
05/08/19	2019 OIB Science Flight #19	Science	8	171.3	78.7	0
05/12/19	2019 OIB Science Flight #20	Science	9	180.3	69.7	0
05/13/19	2019 OIB Science Flight #21	Science	7	187.3	62.7	0
05/14/19	2019 OIB Science Flight #22	Science	7.9	195.2	54.8	0
05/15/19	2019 OIB Science Flight #23	Science	8.3	203.5	46.5	0
05/16/19	2019 OIB Science Flight #24	Science	6.3	209.8	40.2	0
05/17/19	2019 OIB Transit	Transit	6.2	216	34	0
05/17/19	2019 OIB Transit	Transit	0.3	216.3	33.7	0

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

OIB - P-3 Orion - WFF 05/08/19 Science Report

Mission: OIB
Mission Summary:

Mission: Southwest Coastal B IS-2
Priority: High

One of two sister missions, the Southwest Coastal B was last flown in 2015; however, it was modified for this campaign by replacing the original 2011 LVIS flight lines with ICESat-2 tracks giving the mission the new IS-2 distinction. A total of six ICESat-2 tracks were flown, one of which was swapped (see notes below) to minimize the timing between OIB and IS-2 data collection (the attached map has been updated accordingly). Curiously, we shifted to the (memorable) IS-2 RGT 666 for a 2nd day in a row, which we presume will not bring us bad luck.

The survey includes lower and higher elevations, rocky terrain along the western most tracks for IS-2 geolocation validation, and Kangiata Nunaata Sermia (KNS). The flight was quite smooth, although quite featureless, over the interior ICESat-2 tracks. Much of the final leg (IS-2 RGT 666) was over steep, rocky terrain to aid in geolocation validation.

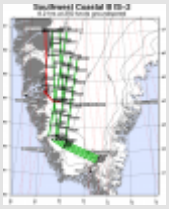
OIB had near 100% clear skies over the entire survey. We noted that significant portions of the coast (outside of today's flight path) had a thick fog, which potentially would have meant data loss if we had chosen the sister Southwest Coastal A mission. Headwall SWIR was unable to be operated today, but otherwise all instruments worked well. ATM estimates 100% altimetry data recovery. We performed a ramp pass at 1500' prior to landing.

ICESat-2 Tracks (+/- indicates OIB surveyed after/before ICESat-2)

0544, + 5 days
0483, - 9 days
0422, - 13 days
0399, -14 days
0338 -18 days,
0666, - 3 day

Images:

Map of today's mission



Read more

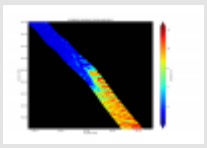
OIB team (+ BBC) photo before today's flight

Read more

Fog crawls up the walls of the snowy peaks near Narsarsuaq in

Read more

ATM T6 image of the ill-defined front Kangiata Nunaata Sermia



Read more

Teal blue fjord waters of adjacent to the Kangiata Nunaata Sermia (KNS) Glacier. The survey continued on steeply sloping rock for IS-2

validation efforts

Read more

Southern margin of Russell Glacier and its adjacent lateral moraine

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Abandoned braided stream network showing signs of re-activation

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Submitted by: Brooke Medley on 05/23/19

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